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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,795	02/24/2004	Vieri Vanghi	040003	3351

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QUALCOMM INCORPORATED
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EXAMINER

HEIBER, SHANTELL LAKETA

ART UNIT	PAPER NUMBER
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2617

NOTIFICATION DATE	DELIVERY MODE
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10/01/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/786,795	Applicant(s) VANGHI ET AL.	
	Examiner SHANTELL HEIBER	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/24/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 13, 15, 18, 27 and 29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 33 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant fails to define "processor-readable memory" in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 7-13, 15, 18, 21-27 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (Lee), U.S. Patent No. 7,130,284 in view of Kim et al. (Kim), U.S. Publication No. 2001/0016493

Regarding Claims 1, 13, 15, 18, 27 and 29, Lee discloses a wireless device, a method and apparatus operable to communicate with first and second wireless communication networks of different radio access technologies, comprising: a first modem processor (**first baseband processor 403**) operative to perform processing for a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP) (**async mobile communication system**), receive a first message from the first wireless network to perform handoff to the second wireless network, receive a search message carrying a list of frequencies to search for cells in the second wireless network, and provide notification of the handoff; and a second modem processor (**second baseband processor 406**) operative to determine pilot acquisition for the list of frequencies and to produce a search result, exchange a second message with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2) (**sync mobile communication system**) to establish a new call with the second wireless network, perform a call setup procedure with the second wireless network to establish the new call, and perform processing for the new

call with the second wireless network (**Col. 9, line 62-Col. 10, line 39 and Col. 14, line 51-Col. 15, line 17**).

Lee fails to disclose determine pilot acquisition for additional frequencies not included in the list of frequencies.

In a similar field of endeavor, Kim discloses a method and apparatus for idle handoff in a cellular system. Kim further discloses determine pilot acquisition for additional frequencies not included in the list of frequencies (**a list of neighboring base stations is transmitted by the current base station to a mobile telephone, the mobile telephone detects a pilot signal from one of the neighboring base stations and determines whether the detected neighboring base station is included in the list of the neighboring base stations; [0059]-[0062]; [0071]; [0072]; [0080] and [0081]**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to measure the strengths of the pilot signals from the candidate cells in a short time (Lee-Col. 14, lines 38-41) for maintaining the continuity of the transmission traffic (Kim-[0003] and [0004]).

Regarding Claims 2 and 18, Lee discloses further comprising: an application processor operative to receive the notification from the first modem processor, direct the second modem processor to establish the new call, and direct the first modem processor to release the pending call (**Col. 9, line 62-Col. 10, line 39 and Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 3, Lee discloses wherein the application processor is operative to direct the first modem processor to release the pending call concurrently with the establishment of the new call or shortly after the new call has been established to minimize disruption of service (**Col. 9, line 62-Col. 10, line 39 and Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 7, Lee discloses wherein the pending and new calls are voice calls (**Col. 1, lines 38-50**).

Regarding Claim 8, Lee discloses wherein the first modem processor is operative to maintain a first protocol stack for communication with the first wireless network and the second modem processor is operative to maintain a second protocol stack for communication with the second wireless network (**Col. 9, line 62-Col. 10, line 39**).

Regarding Claim 9, Lee discloses wherein the second modem processor is operative to perform pilot re-acquisition and cell search, as necessary, obtain updated system information, and perform system access for the second wireless network to establish the new call (**Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 10, Lee discloses wherein the wireless device is operable to communicate with the first and second wireless networks simultaneously (**Col. 14, line 51-Col. 15, line 46**).

Regarding Claim 11, Lee discloses wherein the handoff is triggered by the first wireless network based on measurements obtained by the wireless device (**Col. 14, lines 51-61**).

Regarding Claim 12, Lee discloses wherein the handoff is triggered by the first wireless network based on location information for the wireless device (**Col. 13, lines 27-30**).

Regarding Claim 21, Lee discloses wherein the first message from the first wireless network includes information for one or more target cells in the second wireless network to which the wireless device is handed off (**Col. 13, lines 27-39 and Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 22, Lee discloses wherein the one or more target cells are determined by the first wireless network based on search results from the second modem processor for a list of frequencies in the second wireless network (**see rejection for claim 21**).

Regarding Claim 23, Lee discloses wherein the second modem processor is further operative to send a second message to the second wireless network indicating successful completion of the handoff to the second wireless network **Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 24, Lee discloses wherein the first modem processor is operative to autonomously terminate the pending call with the first wireless network after providing the notification of the handoff **Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 25, Lee discloses wherein the application processor is further operative to direct the first modem processor to terminate the pending call with the first wireless network (**see rejection for claim 24**).

Regarding Claim 26, Lee discloses wherein the first wireless network terminates the pending call based on signaling between the first and second wireless networks **(see rejection for claim 24)**.

Regarding Claim 30, Lee discloses wherein the first and second modem processors independently perform processing for the first and second wireless networks, respectively **(Col. 9, line 62-Col. 10, line 39 and Figure 4)**.

Regarding Claim 31, Lee discloses wherein the first and second modem processors support concurrent with the first and second wireless networks **(Col. 9, line 62-Col. 10, line 39 and Figure 4)**.

Regarding Claim 32, Lee discloses wherein the first and second modem processors are implemented with separate processors **(Col. 9, line 62-Col. 10, line 39 and Figure 4)**.

7. Claims 4-6, 14, 16, 17, 19 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Kim in view of Patel et al. (Patel), U.S. Publication No. 2004/0203469 and Singh et al. (Singh), U.S. Publication No 2003/0139184.

Regarding Claims 4, 14, 16, 19 and 28, Lee and Kim disclose the wireless device, a method and apparatus as described above.

Lee and Kim fails to disclose wherein the first radio access technology is Wideband Code Division Multiple Access (W-CDMA) and the second radio access technology is IS-2000.

In a similar field of endeavor, Singh discloses wherein the first wireless network implements Wideband Code Division Multiple Access (W-CDMA) **(see paragraphs [0024], [0026] and [0028])** and Patel discloses wherein the second wireless network implements IS-2000 **[0022]**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow for a mobile user to roam from one region to another where different radio access technologies are covered allowing for calls to be maintained and set up on the existing network [Singh-0007] where the regions are two systems that are becoming harmonized and there is a need for various technologies that are compatible with both systems relating to handoff (Lee-Col. 1, lines 32-37).

Regarding Claim 5, Lee and Kim disclose the wireless device wherein the second modem processor is operative to perform a mobile terminated (MT) call setup procedure defined by IS-2000 **(Lee-Col. 14, line 51-Col. 15, line 17)** as described above.

Lee and Kim fail to disclose wherein the second message is a General Page Message sent by the second wireless network.

Patel discloses a mobile terminated (MT) call setup procedure defined by IS-2000, and wherein the message is a General Page Message sent by the wireless network **[0022]**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a well-known format of a general page message according to

TIA/EIA IS-2000 [Patel-0022] in a mobile communication system operating in accordance with IMT-2000 specification (Lee-Col. 1, lines 25-30).

Regarding Claim 6, Lee and Kim disclose the wireless device wherein the second modem processor is operative to perform a mobile originated (MO) call setup procedure defined by IS-2000 (**Lee-Col. 14, line 51-Col. 15, line 17**) as described above.

Lee and Kim fail to disclose wherein the second message is an Origination Message sent to the second wireless network.

Patel discloses a mobile originated (MO) call setup procedure defined by IS-2000, and wherein the message is an Origination Message sent to the wireless network **[0030]**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to request establishment of a traffic channel between a device in handoff between two different systems utilizing two different networks.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Singh in view of Patel in view of Kim.

Regarding Claim 17, Singh discloses a UMTS (Universal Mobile Telecommunications System) Terrestrial Radio Access Network (UTRAN) comprising: means for processing a pending call with a wireless device; means for sending a first message to the wireless device to perform a handoff to a radio access network (RAN);

means for sending a second message to a UMTS mobile switching center (MSC) to request relocation of the wireless device to another MSC in the RAN; means for receiving an indication of a new call established for the wireless device with the RAN; and means for terminating the pending call with the wireless device as described above **(see paragraphs [0032], [0033] and [0069]-[0071])**.

Singh fails to disclose wherein the radio access network is a cdma 2000.

Patel discloses wherein the radio access network is a cdma 2000 **[0022]**.

Singh also fails to disclose means for sending a search message carrying a list of frequencies to search for cells in the second wireless network and means for receiving a search result comprising pilot acquisition determined for the list of frequencies and additional frequencies not included in the list of frequencies.

Kim discloses means for sending a search message carrying a list of frequencies to search for cells and means for receiving a search result comprising pilot acquisition determined for the list of frequencies and additional frequencies not included in the list of frequencies **[0059]-[0062]; [0071]; [0072]; [0080] and [0081]**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow for a mobile user to roam from one region to another where different radio access technologies are covered allowing for calls to be maintained and set up on the existing network [Singh-0007].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shantell Heiber whose telephone number is (571)272-0886. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. H./
Examiner, Art Unit 2617
September 22, 2008

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617